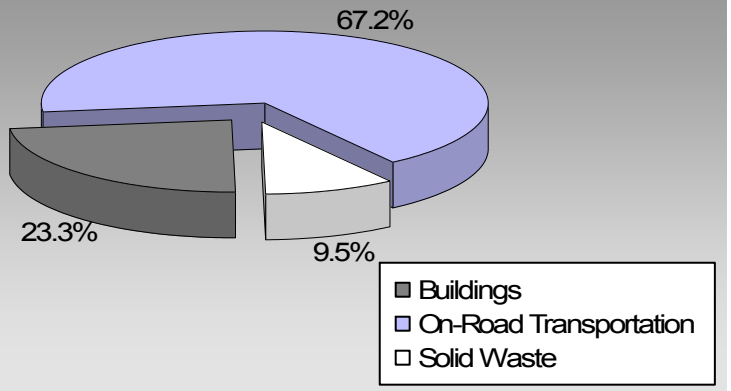
Campbell River City
Updated 2007 Community Energy and Emissions Inventory

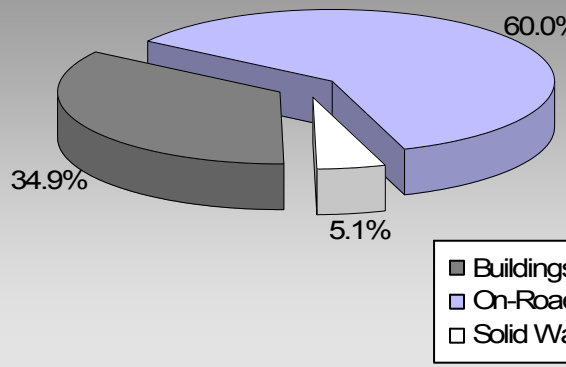
BC's Community Energy and Emission Inventories...supporting efforts towards Complete, Compact, Energy-Efficient Communities

Where are the majority of our community's emissions coming from?

Campbell River City
2007 GHG Emissions Sources

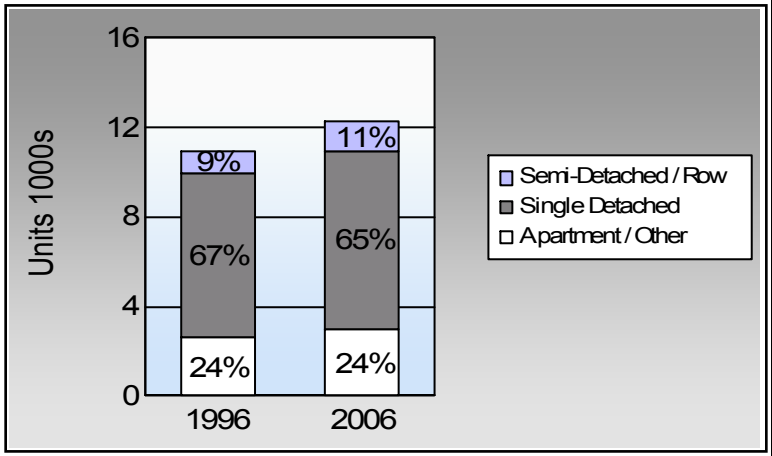


Total for BC Communities



Are we living more compactly?

Housing Type



In BC, single family detached housing made up 49% of housing in 2006.

Are we driving less?

Commute To Work

	1996	2006
	76.0%	76.8%
	9.8%	9.6%
	3.2%	2.7%
	5.1%	5.6%
	1.1%	1.4%

In BC, 10% of people took transit, 7% walked, and 2% cycled to work in 2006.

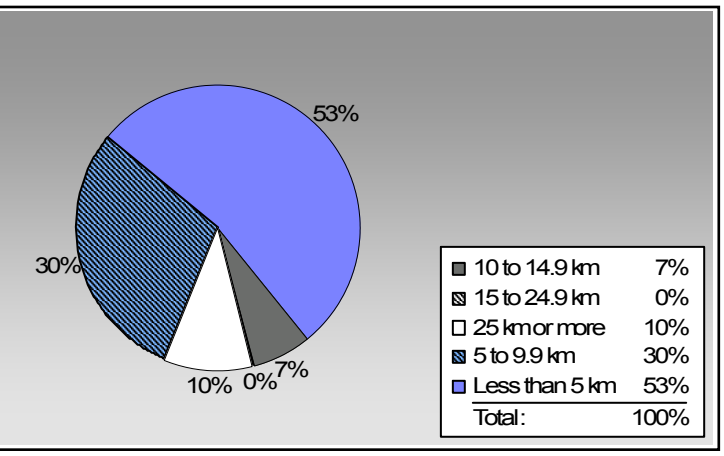
Residential Density

Campbell River City: 3.8 people per net ha

BC municipal average: 7.4 people per net ha

Are we living closer to where we work?

Commute Distance



In BC, 41% of people lived within 5km of their work in 2006.

For more information and to provide feedback on your Community Energy and Emissions Inventory (CEEI) Report see back page.

Sectors

On Road Transportation		Vehicles	Consumption	Measurement	Average-VKT(km)	Energy (GJ)	CO2e (t)
Small Passenger Cars	Gasoline	5,617	7,790,152	Litres	13,881	272,655	18,608
	Diesel Fuel	253	264,846	Litres	14,524	10,144	723
	Other Fuel	< 10	191	Litres		7	-
				Small Passenger Cars		**282,806**	**19,331**
Large Passenger Cars	Gasoline	3,045	6,870,761	Litres	18,604	240,477	16,361
	Diesel Fuel	64	158,306	Litres	18,970	6,063	432
	Other Fuel	< 10	9,977	Litres	14,094	382	15
				Large Passenger Cars		**246,922**	**16,808**
Light Trucks, Vans, SUVs	Gasoline	9,751	28,691,090	Litres	19,858	1,004,188	68,800
	Diesel Fuel	1,193	2,895,648	Litres	19,491	110,903	7,911
	Other Fuel	76	181,996	Litres	13,264	6,970	279
				Light Trucks, Vans, SUVs		**1,122,061**	**76,990**
Commercial Vehicles	Gasoline	91	456,700	Litres	17,613	15,984	1,072
	Diesel Fuel	193	928,054	Litres	21,678	35,544	2,497
	Other Fuel	< 10	29,581	Litres	12,643	1,133	45
				Commercial Vehicles		**52,661**	**3,614**
Tractor Trailer Trucks	Gasoline	< 10	5,951	Litres	7,085	208	14
	Diesel Fuel	240	6,849,475	Litres	75,586	262,335	18,432
	Other Fuel	< 10	4,166	Litres	7,085	160	6
				Tractor Trailer Trucks		**262,703**	**18,452**
Motorhomes	Gasoline	229	246,764	Litres	2,831	8,637	577
	Diesel Fuel	22	29,440	Litres	4,244	1,128	79
	Other Fuel	< 10	2,907	Litres	2,189	111	4
				Motorhomes		**9,876**	**660**
Motorcycles, Mopeds	Gasoline	410	166,042	Litres	4,895	5,811	388
				Motorcycles, Mopeds		**5,811**	**388**
Bus	Gasoline	15	122,456	Litres	19,523	4,286	287
	Diesel Fuel	27	294,426	Litres	21,296	11,276	792
	Other Fuel	< 10	10,241	Litres	15,902	392	16
				Bus		**15,954**	**1,095**

	Gasoline:	1,552,246	106,107
	Diesel:	437,393	30,866
	Other Fuel:	9,155	365
On Road Transportation Totals	**All Fuels:**	**1,998,794**	**137,338**

Buildings

	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)
Residential	Electricity	13,538	191,114,026	Kilowatt Hours	688,010	4,714
	Natural Gas	4,975	283,381	GigaJoules	283,381	14,452
	Heating Oil		127,116	GigaJoules	127,116	8,960
	Propane		21,905	GigaJoules	21,905	1,336
	Wood		155,124	GigaJoules	155,124	57
			Residential		**1,275,536**	**29,519**
Commercial/Small-Medium Industrial	Electricity	2,014	132,812,749	Kilowatt Hours	478,126	3,276
	Natural Gas	649	290,615	GigaJoules	290,615	14,821
			Commercial/Small-Medium Industrial		**768,741**	**18,097**

	Electricity:	1,166,136	7,990
	Natural Gas:	573,996	29,273
	Propane:	21,905	1,336
	Wood:	155,124	57
	Heating Oil:	127,116	8,960
Buildings Totals	**Buildings:**	**2,044,277**	**47,616**

Solid Waste

	Mass (t)	CO2e (t)
Community Solid Waste	20,320	19,311

Grand Total		CONSUMPTION		ENERGY (GJ)	CO2e (t)
	Diesel Fuel	11,420,195	L	437,393	30,866
	Electricity	323,926,775	kWh	1,166,136	7,990
	Gasoline	44,349,916	L	1,552,246	106,107
	Heating Oil	127,116	GJ	127,116	8,960
	Natural Gas	573,996	GJ	573,996	29,273
	Other Fuel	239,059	L	9,155	365
	Propane	21,905	GJ	21,905	1,336
	Solid Waste	20,320	T	0	19,311
	Wood	155,124	GJ	155,124	57
Total of Transportation / Buildings / Solid Waste:				**4,043,071** GJ	**204,265** tonnes

Memo Items

Buildings	Type	Connections	Consumption	Measurement	Energy (GJ)	CO2e (t)
Large Industrial	Electricity	1	withheld	Kilowatt Hours	-	-
	Natural Gas	2	withheld	GigaJoules	-	-
				Large Industrial	**-**	**-**

Supporting Indicators

Below you will find supporting indicators for which data is provided. These are the first five supporting indicators for which data is provided as a part of the updated 2007 CEEI. Columns with all zeros indicate data unavailable in these CEEI reports. Thirteen additional supporting indicators are under consideration for future reports (see next page). Local government feedback is requested on all supporting indicators. Please take the time to complete the short CEEI Survey at http://www.env.gov.bc.ca/cas/mitigation/ceei/index.html or contact us directly at CEEIRPT@gov.bc.ca

Housing Type - Private dwellings by structural type

Housing type is important for reducing building-related GHG emissions and energy consumption. A trend toward fewer single family dwellings indicates an increase in residential density, which is known to reduce transportation-related GHG emissions.

	1996		2001		2006	
	Units	%	Units	%	Units	%
Single Detached House	7,385	40	7,850	69	7,950	65
Semi-Detached House	295	2	370	3	460	4
Row House	675	4	735	7	835	7
Apartment, Duplex	375	2	135	1	405	3
Apartment, 5 storeys or higher	45	0	20	0	60	0
Apartment, under 5 storeys	1,680	9	1,740	15	2,025	17
Other Single Attached House	0	0	20	0	5	0
Movable Dwelling	495	3	435	4	490	4

Residential Density

* Net of Crown land, parks, Indian Reserves, water features, airports, ALR,waste disposal sites.

Increasing residential densities is known to reduce vehicle use resulting in fewer transportation-related GHG emissions. There are many additional benefits from more compact development.

	2009
Population	31,328.0
Net Land Area (ha) *	8,275.3
Residential Density (people per net ha)	3.8

Commute to Work - Employed labour force - by mode of commute

An increase in the number of people choosing to walk, cycle and use transit reduces GHG emissions. More compact, complete, connected communities should see an increase in the use of these transportation modes.

	1996		2001		2006	
	People	%	People	%	People	%
Car, Truck, Van as Driver	9,965	76	9,375	77	10,305	77
Car, Truck,Van as Passenge	1,290	10	1,105	9	1,290	10
Public Transit	425	3	390	3	360	3
Walked	665	5	540	4	755	6
Bicycle	140	1	175	1	185	1
Motorcycle	25	0	20	0	50	0
Taxicab	10	0	30	0	10	0
Other Method	595	5	525	4	465	3

Commute Distance

Shorter commute distances generally reduce GHG emissions by increasing the likelihood of people walking, cycling or using transit. Commute distance is also indicative of the 'completeness' of a community from an employment perspective.

	2006	
	People	%
Less than 5 km	5,975	53
5 to 9.9 km	3,345	30
10 to 14.9 km	740	7
15 to 24.9 km	30	0
25 km or more	1,125	10

Parks and Protected Greenspace

* Total is net of Indian Reserves

** The quantity of parkland may be underestimated

Parks and protected greenspaces are important for the protection and enhancement of community carbon sinks.

	2009	
	Area (ha)	%
National Parks	0.0	0.0
Provincial Parks / Protected Areas	1,085.2	7.1
Local Parks	59.9	0.4
Agricultural Land Reserve	5,017.1	33.0
Other land use	9,065.8	59.5
Total Land Area	15,227.9	100.0

Supporting Indicators Under Consideration

The following supporting indicators are under consideration for inclusion in future CEEI reports. The 2007 CEEI reports provide these 'placeholder' indicators to give indication of data that may be provided in the future by the Province on an ongoing basis to assist in monitoring actions to reduce GHG emissions and energy consumption. Please submit feedback to CEEIRPT@gov.bc.ca (see survey on CEEI website).

On-Road Transportation (and Land Use)

Proximity to Transit	Persons, dwelling units (du) and employment within 400m of a quality transit stop/line
Proximity to Services	Persons and dwelling units (du) within 400m of services (e.g. grocery store, school, other retail etc.)
Transit Ridership	Annual per capita transit ridership

Buildings

Residential; Public Building Energy Intensity	Average energy use per person per square metre of floor space
Floor Space	Average residential dwelling unit size

Solid Waste (and Water)

Waste Diversion	Tonnes of waste diverted
Avoided Waste Emissions	Tonnes of CO_2e of avoided future emissions due to reduced waste since 2007
Water Use	Per capita residential water use

Land-Use Change

Impervious Surface Cover	% change in impervious surface cover
Tree Canopy Cover	% change in tree canopy cover

Community and Renewable Energy Supply

District Energy	# and energy output (e.g. buildings connected, energy consumed in GJ or kWh) of district energy systems by energy type (e.g. renewable or non-renewable)
On-Site Renewable Energy	# and energy output (in GJ or kWh) from households producing and/or consuming on-site renewable heat (e.g. biomass, solar thermal, geo-exchange) and/or electrical (e.g. solar photovoltaic, small wind, small scale hydro) energy
Energy Recovery From Waste	Energy (GJ or kWh) recovered from waste (e.g. from landfill gas, sewage treatment, industrial operations, farm)

This is your local government's Updated 2007 Community Energy and Emissions Inventory (CEEI) Report

What is a CEEI Report?
CEEI Reports are a result of a multi-agency effort to provide a province-wide solution to assist local governments in BC to track and report on community-wide energy consumption and greenhouse gas (GHG) emissions every two years. CEEI Reports are one of the many resources available through the Climate Action Toolkit (<http://www.toolkit.bc.ca>), a web-based service provided through the ongoing collaboration between UBCM and the Province.

Why does my local government need a CEEI Report?
A community energy and GHG emissions inventory can be a valuable tool that helps local governments plan and implement GHG and energy management strategies, while at the same time strengthening broader sustainability planning at the local level. CEEI reports fulfill local governments' Climate Action Charter commitment to measure and report their community's GHG emissions profile, establish a base year inventory for local governments to consider as they develop targets, policies, and actions related to BC's *Local Government Act* requirements, and fulfill Milestone One requirements for those local government members of the Federation of Canadian Municipalities' (FCM's) Partners in Climate Protection (PCP) program.

A first in North America!
CEEI is a first in North America and a first step for BC communities. The 2007 CEEI Reports are based on best available province-wide data. The accuracy and detail of CEEI reports will continue to improve to meet increasing local and provincial government information needs. Improvements have been made from the original draft 2007 CEEI Reports posted in Spring 2009. These include estimates for residential heating oil, propane and wood use, breaking out small and medium from large industrial buildings, including updated land-use change and new agricultural sectors as 'memo items', and the first of a suite of 'supporting indicators'. Following the 2010 CEEI Reports, inventories will be generated every two years, and will continue to improve as government information needs, international protocols and new data sources emerge.

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For More Information:

- The full list of all BC local government Updated 2007 CEEI Reports, CEEI Data Summary Report, Technical Methods and Guidance Document, and additional information on the Secondary Indicators are available at: <http://www.env.gov.bc.ca/cas/mitigation/ceei/index.html>.

- For guidance on target setting and community actions, go to <http://www.toolkit.bc.ca> and <http://www.cd.gov.bc.ca/lgd/greencommunities/targets.htm>.

We Need Your Feedback:

- To continue to guide us on CEEI, particularly now with the new Indicators. Please take the time to complete the short CEEI Survey at <http://www.env.gov.bc.ca/cas/mitigation/ceei/index.html> or contact us directly at CEEIRPT@gov.bc.ca